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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/730,768	12/08/2003	Donald G. Eggerling	HFSC:015US	3434

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EXAMINER

MEHTA, ASHWIN D

ART UNIT	PAPER NUMBER
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1638

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	01/04/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary	Application No. 10/730,768	Applicant(s) EGGERLING, DONALD G.	
	Examiner Ashwin Mehta	Art Unit 1638	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 29 November 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-24 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-24 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>6232004 & 7012004</u> . | 6) <input type="checkbox"/> Other: _____ |

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DETAILED ACTION

1. The response to the request for information under 37 CFR 1.105, filed November 29, 2006, has been entered.

Specification

2. The specification at page 24, line 24, and page 44, line 5, recite a U.S. patent application serial number. The sentences should be amended to indicate the status (abandoned, or if allowed, the patent number) of the application.

3. The listing of references in the specification on pages 55-56 is not a proper information disclosure statement. 37 CFR 1.98(b) requires a list of all patents, publications, or other information submitted for consideration by the Office, and MPEP § 609.04(a) states, "the list may not be incorporated into the specification but must be submitted in a separate paper." Therefore, unless the references have been cited by the examiner on form PTO-892, they have not been considered.

Claim Objections

4. Claim 21 is objected to because of the following informalities: two consecutive semicolons appear in line 4 after "carbohydrate metabolism". Appropriate correction is required.

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5. Applicant is advised that should claim 8 be found allowable, claim 6 will be objected to under 37 CFR 1.75 as being a substantial duplicate thereof. When two claims in an application are duplicates or else are so close in content that they both cover the same thing, despite a slight difference in wording, it is proper after allowing one claim to object to the other as being a substantial duplicate of the allowed claim. See MPEP § 706.03(k).

Claim 6 is drawn to corn plant LH360, further comprising a nuclear or cytoplasmic gene conferring male sterility. Claim 8 is drawn to a male sterile corn plant produced by a method comprising introducing a nucleic acid molecule that confers male sterility into corn plant LH360 (claim 8 is being interpreted as if it depends from claim 7; see the indefinite rejection below). The plant of claim 6 can only be formed by following the method of claim 7, which broadly encompasses any manner of introducing nucleic acid molecules into the plant. Claims 6 and 8 are both drawn to the same plant.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

6. Claims 1-24 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claims 1, 2, 9, 11-13, 17-19, 22, and 23: the claims are indefinite for the recitation, "LH360". This is an arbitrarily assigned designation. It does not define any traits possessed by

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the variety. This name can also be changed or arbitrarily assigned to any other plant line.

Inclusion of the ATCC accession number into the claims will obviate the rejection.

In claim 8: the claim is directed to a plant produced by the method of claim 6. However, claim 6 is also directed to a plant, not a method. Claim 8 will be interpreted as if it depends from claim 7.

In claims 16 and 21: the recitations, "yield enhancement", "improved nutritional quality" render the claims indefinite. The terms are relative and have no definite meaning. The metes and bounds of the claim are unclear.

Further in claims 16 and 21: the recitation, "male sterility and restoration of male fertility" also renders the claims indefinite. It is unclear what trait is being conferred to by this recitation. Are both male sterility and restoration of male fertility being conferred? If the trait of male sterility were being conferred, then this would be reversed by restoration of male fertility. What, then, is the resultant phenotype? If this recitation is actually supposed to be two separate Markush group members, then it is confusing because the specification does not describe LH360 as being male sterile. Introduction of a trait restoring male fertility would not change anything in the recipient plant. The metes and bounds of the claims are unclear.

In claim 19: the recitation, "substantially" in line 5 of part (e) renders the claim indefinite. The recitation is a relative term that has no definite meaning. The metes and bounds of the claim are unclear.

In claim 20: the article, "a" in the recitation, "the genetic locus was stably inserted into a corn genome by genetic transformation" renders the claim indefinite. It is unclear if the genome is that of the first corn plant, or another plant. If it is another corn plant, the claim does not make

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clear how the locus came to be in the first corn plant.

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

7. Claims 1-24 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

The claims are broadly drawn towards seed of corn variety LH360; or a corn plant, or a part thereof, of variety LH360; tissue culture of cells from said corn plant; a corn plant regenerated from the tissue culture and having all the morphological and physiological characteristics of LH360; a method of producing a male sterile corn plant comprising introducing a nucleic acid molecule conferring male sterility into LH360; and method for producing a corn seed comprising crossing LH360 another corn plant, wherein one or both plants is LH360; said method wherein the second plant is different; a corn plant having all the physiological and morphological characteristics of variety LH360; a method of producing an inbred corn plant derived from LH360; a method of producing a conversion of LH360; a hybrid corn seed, or plant grown therefrom, having LH360 as one parent.

The claimed seed of corn variety LH360 is essential to the claimed invention. It must be obtainable by a repeatable method set forth in the specification or otherwise be readily available to the public. If the seed is not so obtainable or available, a deposit thereof may satisfy the requirements of 35 U.S.C. 112. The specification does not disclose a repeatable process to

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obtain the exact same seed in each occurrence and it is not apparent if such a seed is readily available to the public. A deposit of the seeds of inbred corn line LH360 with an acceptable depository is required. Page 22 of the specification indicates that a deposit of seed of LH360 was made with the ATCC, under the terms of the Budapest Treaty. However, the date of deposit, accession number, and other information required by 37 CFR 1.801-1.809 is missing.

If a deposit is made under the terms of the Budapest Treaty, then a statement, affidavit or declaration by Applicants, or a statement by an attorney of record over his or her signature and registration number, or someone empowered to make such a statement, stating that the instant invention will be irrevocably and without restriction released to the public upon the issuance of a patent, would satisfy the deposit requirement made herein.

If a deposit has not been made under the Budapest Treaty, then in order to certify that the deposit meets the criteria set forth in 37 CFR 1.801-1.809 and MPEP 2402-2411.05, Applicant may provide assurance of compliance by statement, affidavit or declaration, or by someone empowered to make the same, or by a statement by an attorney of record over his or her signature and registration number showing that:

(a) during the pendency of the application, access to the invention will be afforded to the Commissioner upon request;

(b) all restrictions upon availability to the public will be irrevocably removed upon granting of the patent;

(c) the deposit will be maintained in a public depository for a period of 30 years or 5 years after the last request or for the enforceable life of the patent, whichever is longer;

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(d) the viability of the biological material at the time of deposit will be tested (see 37 CFR 1.807); and

(e) the deposit will be replaced if it should ever become inviable.

8. Claims 1-24 are deemed free of the prior art. The response to the request for information under 37 CFR 1.105 indicates that LH360 was developed from a cross between inbred corn varieties designated LH242 and LH228, which are taught in U.S. Patent Nos. 5,750,850 and 5,767,341, respectively, selfing and following the pedigree system of breeding, while selecting the plants for several specific traits. Motivation to particularly cross LH242 with LH228 in the prior art is lacking, and the method of production would not again produce LH360.

Contact Information

Any inquiry concerning this or earlier communications from the Examiner should be directed to Ashwin Mehta, whose telephone number is 571-272-0803. The Examiner can normally be reached from 8:00 A.M to 5:30 P.M. If attempts to reach the Examiner by telephone are unsuccessful, the Examiner's supervisor, Anne Marie Grunberg, can be reached at 571-272-0975. The fax phone numbers for the organization where this application or proceeding is assigned are 571-273-8300. Patent applicants with problems or questions regarding electronic images that can be viewed in the Patent Application Information Retrieval system (PAIR) can now contact the USPTO's Patent Electronic Business Center (Patent EBC) for assistance. Representatives are available to answer your questions daily from 6 am to midnight (EST). The toll free number is (866) 217-9197. When calling please have your application serial or patent number, the type of document you are having an image problem with, the number of pages and the specific nature of the problem. The Patent Electronic Business Center will notify applicants of the resolution of the problem within 5-7 business days. Applicants can also check PAIR to confirm that the problem has been corrected. The USPTO's Patent Electronic Business Center is a complete service center supporting all patent business on the Internet. The USPTO's PAIR system provides Internet-based access to patent application status and history information. It also enables applicants to view the scanned images of their own application file folder(s) as well as general patent information available to the public. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>.

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For all other customer support, please call the USPTO Call Center (UCC) at 800-786-9199.

December 22, 2006

A handwritten signature in black ink, appearing to read 'Ashwin D. Mehta', is positioned above the printed name.

Ashwin D. Mehta, Ph.D.
Primary Examiner
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